

REMARKS

Claims 115-118 and 120-127 were again rejected under §103(a) as unpatentable over (1) Kraft et al. (US 4,760,103) in view of (2) Eadara (US 5,198,065) or JP 6-145630 and further in view of (3) O'Brill (US 4,172,063) or Chinese patent 1,057,849. Claims 119 and 174 were rejected over these references and further in view of Stahovic. Applicants disagree.

The primary reference is Kraft et al. which discloses a nonskid composition that lacks both an epoxy-containing toughening agent and a glass fiber thixotrope and impact toughening agent.

The examiner turns to either Eadara or JP 6-145630 for teaching of an epoxy-containing toughening agent. Initially, applicant points out that Eadara and JP 6-145630 both clearly lack disclosure of a glass fiber thixotrope and impact toughening agent.

Kraft et al. discloses a nonskid coating for, e.g., flight and hangar decks of aircraft carriers. The Kraft et al. nonskid composition is formulated to adhere to the surface of an aircraft carrier. The Kraft et al. composition is not formulated to bond one surface to another surface. Instead, the Kraft nonskid composition is formulated to bond to a single surface to act as a nonskid coating that has high impact resistance.

By contrast, Eadara discloses an epoxy adhesive for "bonding steel to moist, acidic wood." See column 1, lines 15-18. There is no indication or suggestion that the Eadara adhesive can or should be used as an aircraft deck surface. In view of the foregoing, the epoxy adhesive of Eadara is totally different from the nonskid composition of Kraft et al. in both composition and application. Thus there is no motivation to combine these references.

The Examiner misses the mark at page 2 of the Final Action in asserting that the references are analogous because "Kraft et al. desires the nonskid coating to 'maintain their adhesion to primed steel after severe impacts (col. 1, lines 37-38)'. Thus, Kraft et al., Eadara and the Japanese patent are directed to epoxy resin compositions with aluminum oxide [sic] requiring adhesiveness." Using this logic, one would always be motivated if an epoxy composition had adhesive properties. Clearly this is not the case. Furthermore, Eadara is directed to "bonding steel to moist, acid wood." The Examiner errs in asserting this reference

discloses "aluminum oxide adhesiveness." Moreover, JP 6-145630 discloses "copper peeling strength," not aluminum oxide. For these additional reasons, the Examiner's rejection is incorrect. Applicant submits that the combination of Kraft et al. with Eadara was improper and, therefore, the examiner has not made out a *prima facie* case of obviousness.

Furthermore, Eadara adds polysulfide as a "flexibilizer." See column 2, lines 51-60. While Kraft et al. does not state why it was added, owing to the desired end use, applicant believes that the elastomer modified epoxy resin (epoxy terminated elastomeric acrylonitrile-butadiene copolymer) appears to have been added by Kraft et al. as a toughener, not to enhance flexibility. Kraft et al. is silent as to flexibility being a desirable property of a nonskid composition. Indeed, Kraft et al. states the opposite in seeking a nonskid composition that has "enhanced impact resistance and resistance to sliding movement thereon by aircraft." See column 1, lines 30-35. Flexibility is not a desirable attribute of Kraft et al.'s nonskid composition, which instead must have high impact resistance. Indeed, combining Eadara with Kraft et al. may well destroy the very purpose of the Kraft et al. invention. In view of the foregoing, a skilled artisan would simply not be motivated to combine Eadara with Kraft et al.

At page 3 of the Final Action, the Examiner states that Kraft et al. "does not preclude the efficacy of imparting flexibility via the incorporation of the epoxy-terminated polysulfide flexibilizer of Eadara." This does not explain why a skilled artisan would add the polysulfide to Kraft et al. Stated differently, the fact that a given substance could allegedly be added to Kraft et al.'s nonskid composition does not mean a skilled artisan would be motivated to make the addition. As stated above, no such motivation exists. The Examiner's rationale falls short. Again, the rejection should be withdrawn.

What is more, the Examiner relies upon applicant's own specification for a teaching of the "advantages of providing flexibility from an expoxide-containing toughening agent is acknowledged in the specification on page 13, lines 3-4 and page 14, lines 10-11." This is clearly improper.

Turning to JP 6-145630, this reference is also directed to an adhesive, not a nonskid composition. In JP 6-145630, the adhesive is used with flexible printed wiring boards, a completely different use from aircraft decks. JP 6-145630 states that the adhesives have "excellent electro-insulation (migration resistance) adhesion (copper peeling strength) and

flexibility (folding endurance)." See the Derwent abstract. While JP 6-145630 seeks to increase flexibility, flexibility is not a desired property of Kraft et al.'s nonskid composition to be used for landing strips on aircraft carriers. Instead, Kraft et al. seeks to provide a nonskid composition having high impact resistance. Combining JP 6-145630 with Kraft et al. may well destroy the very purpose of the Kraft et al. invention. JP 6-145630 is thus directed to totally different subject matter from Kraft et al. and a skilled artisan would not be motivated to combine JP 6-145630 with Kraft et al.

The Examiner alleged at page 2 of the Final Action that the JP 6-145630 is analogous to Kraft et al.'s nonskid composition because "Kraft et al. desires the nonskid coating 'to maintain their adhesion to primed steel after severe impacts (col. 1, lines 37-38).' Thus, Kraft et al., Eadara and the Japanese patent are directed to epoxy resin compositions with aluminum oxide [sic]¹ requiring adhesiveness." However, the Japanese patent is directed to adhering to circuit boards which has nothing to do with a nonskid composition for aircraft carriers, as in Kraft et al. The Examiner's reasoning is incorrect.

In view of the foregoing, the §103 rejection based on Kraft et al. in combination with either Eadara or JP 6-145630 is erroneous and should be withdrawn.

The combination of the tertiary references, O'Brill and the Chinese patent, with Kraft et al. is also flawed and in error.

Applicant initially observes that the examiner stated "Kraft et al. is open to the inclusion of fiber fillers in column 1, line 51." (Office Action dated 7/21/05 at page 4.) While Kraft et al. does mention fiber fillers, the only specific fiber filler mentioned is "Pulpex by Hercules." See formula numbers 1-3 in Kraft et al. "Pulpex" is a thermoplastic polyethylene or polypropylene fiber used, e.g., in papermaking. Contrary to the examiner's contention, use of "Pulpex" in Kraft et al. does not motivate a skilled artisan to use any fiber filler or glass fibers in particular. There is no indication in the record that Pulpex and glass fibers are equivalent.

At page 3 of the Final Action, the Examiner responds by stating that "Kraft et al. (col. 1, line 51) discloses fiber fillers in general which embrace the glass fibers of O'Brill and the Chinese patent." This again fails to explain why one of skill in the art would be motivated to

make the combination proposed by the Examiner. Applicant has explained above why a skilled artisan would not be so motivated.

It should be further noted that Kraft et al. in fact adds a separate and discrete thickener (an organic derivative of a montmorillonite clay, see column 6) to change the rheology of the composition. In applicant's claimed topcoat, the glass fibers serve to change the rheology of the composition and serve as an impact toughener – a separate thickener as used in Kraft et al. is not needed.

In view of the foregoing, applicant submits that the examiner too broadly construed Kraft et al. Kraft et al. does not suggest inclusion of any fiber filler. Also, glass fibers as claimed are distinct from Kraft et al.'s Pulpex polyethylene fibers.

We will now address the tertiary references.

O'Brill relates to Portland cement compositions. See, e.g., the Summary of Invention and example 1 of O'Brill. The rheology and chemistry of Portland cement is totally different from the epoxy based nonskid composition of Kraft et al. Accordingly, a skilled artisan would not be motivated to employ the glass fibers used in O'Brill in the nonskid composition of Kraft et al. The combination of O'Brill with Kraft et al. is clearly erroneous.

The Examiner states at page 3 of the Final Action that "O'Brill is drawn to a coating on a cement substrate which is analogous to the coating of Kraft et al. wherein the sole different is the type of substrate to be coated." This is clearly incorrect because the O'Brill coating is the Portland cement composition.

The Examiner's attention is directed to col. 3, lines 39-41 wherein it is explained that all of ingredients, including Portland cement, are mixed, and then applied to a test slab. See also col. 1, lines 43.-56. There is no doubt that the O'Brill cement composition is totally different from Kraft et al. Likewise, a skilled artisan would not be motivated to combine these references.

¹ Applicant assumes the Examiner intended to refer to steel, not aluminum oxide.

The Chinese patent relates to a bilayer coating for vibration-damping and fireproofing. The base coat is a polyether-polyurethane. The top coat is formed from epoxy resin, neopentyl glycol glycerol ether, polysulfide rubber, antimony oxide, glass fibers, and a polyamide.

Vibration damping has nothing to do with either Kraft et al. or applicant's claimed invention. For this reason alone, the combination of Kraft et al. with the Chinese reference is improper.

Furthermore, the Chinese reference is silent as to why the glass fibers are added to the top coat. However, applicant notes that the goal of the Chinese reference is vibration-dampening. Apparently, the glass fibers relate to this purpose.

Vibration dampening in the Chinese reference is at least in part accomplished by making the composition more rubbery (through use of the polysulfide), but this does not make the material tougher as is desired in Kraft et al. Vibration damping is not a desired attribute of the nonskid composition of Kraft et al. A skilled artisan would therefore not be motivated to add components of a vibration damping bilayer of the Chinese patent in the nonskid composition of Kraft et al. The combination of Kraft et al. with the Chinese patent is therefore improper.

At page 3 of the Final Action, the Examiner responds by asserting that the "composition of the Chinese patent is also utilized as a coating which is analogous to the coating of Kraft et al. regardless of the ultimate preferential property." Applicant disagrees.

The Chinese patent discloses a coating with fireproof and vibration-dampening properties. These are not "preferential" properties. These are the only properties disclosed in the Chinese patent. The Examiner appears to be asserting that a coating is a coating is a coating. This is simply not so. A coating formulated for vibration damping does not teach or suggest use of its components in a completely different composition – namely, the nonskid coating of Kraft et al. The Examiner has failed to explain why a skilled artisan would be motivated to make this combination. The "coating is a coating" allegation clearly fails to meet the requirements of a relevant case law.

Applicant's arguments as to the failure to provide motivation for the combinations alleged by the Examiner can be summarized in the following table.

Reference	Composition	Application/Properties
Kraft et al.	Nonskid coating	Impact Resistance
Eadara (secondary reference)	Adhesive	Bond moist, acidic wood to steel
JP 6-145630	Adhesive	Elective insulation, flexibility, used for circuit boards
O'Brill (tertiary reference)	Portland Cement mixture	Reflective Marking Composition
Chinese Patent (tertiary reference)	Bilayer coating	Fireproof and vibration-damping

As illustrated in the table, none of the secondary or tertiary references bear any relation to Kraft et al. A skilled artisan would not be motivated to make the combinations alleged by the Examiner.

Lastly, applicant submits that the Examiner is using hindsight to reconstruct applicant's claims. Simply stated, a skilled artisan would not be motivated to combine the references as the Examiner alleges because there is clearly no teaching or suggestion he do so in the references themselves. In view of the foregoing, the rejection is improper and should be withdrawn.

Next, applicant will address the new rejection of claims 119 and 174 based on a four-way combination of references including Stahovic et al. (US 5,990,234). The Examiner cites Stahovic et al. for the alleged obviousness of using 4.4% UV light absorbs.

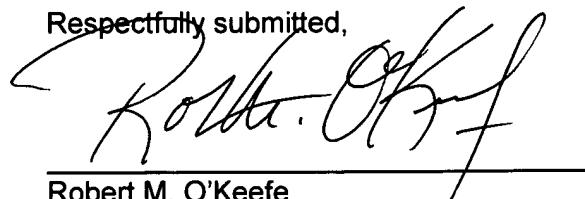
The comments above with respect to Kraft et al., the secondary references, and tertiary references are hereby reasserted. The Examiner provides no reasoning for the combination. For this reason alone, the rejection is improper.

Furthermore, the teachings of Stahovic et al. are unrelated to any of the other references. See, e.g., the Abstract. Accordingly, the combination is improper.

The rejection of claims 119 and 174 should therefore be withdrawn.

No extension of time is believed to be needed in connection with the filing of this paper. However, if an extension is deemed to be needed, please consider this paper to be a request for such extension and deduct any required fee from deposit account 10-1205/TRIA:007CP1.

Respectfully submitted,



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